

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the present application.

1. (previously amended) A product comprising:
a substrate having a strain point or a melting point temperature between about 300°C and 700°C; and
a plurality of substantially aligned carbon nanotubes attached to the substrate at a density greater than 10^4 nanotubes per square millimeter of substrate.
2. (original) A product as claimed in claim 1, wherein the carbon nanotubes extend outwardly from and substantially perpendicular to the substrate.
3. (original) A product as claimed in claim 1, wherein the carbon nanotubes extend outwardly from and at a non-perpendicular angle with respect to the substrate.
4. (original) A product as claimed in claim 1, wherein the carbon nanotubes extend substantially parallel to the substrate.
5. (original) A product as claimed in claim 1, wherein the nanotubes have a diameter between 4 to 500 nanometers.
6. (original) A product as claimed in claim 1, wherein the nanotubes have a diameter of at least 50 nanometers.
- 7-8 (canceled)
9. (original) A product as claimed in claim 1, wherein the substrate comprises glass, silica, quartz, silicon, iron, cobalt, nickel, an alloy of iron, cobalt, or nickel, platinum, a ceramic, or a combination thereof.
10. (original) A product as claimed in claim 9, wherein the substrate is a glass plate.
11. (original) A product as claimed in claim 9, wherein the substrate is a silicon wafer.

12. (previously amended) A product as claimed in claim 87, wherein the catalyst is a metal or metal alloy and wherein substantially all carbon nanotubes have a cap distal from the substrate, the cap comprising the metal or metal alloy.

13. (previously amended) A product as claimed in claim 12, wherein the metal or metal alloy is iron, cobalt, nickel, or an alloy of iron, cobalt, or nickel.

14. (previously amended) A product as claimed in claim 13, wherein the metal or metal alloy is nickel.

15. (original) A product as claimed in claim 1, further comprising a filling within the carbon nanotubes.

16. (original) A product as claimed in claim 1, wherein substantially all carbon nanotubes have an open end.

17. (original) A product as claimed in claim 16, further comprising a filling within the carbon nanotubes.

18. (original) A product as claimed in claim 17, wherein the filling is hydrogen, lithium ions, bismuth, lead telluride, or bismuth tritelluride.

19. (original) A product as claimed in claim 17, wherein the filling is a pharmacological agent.

20. (original) A product as claimed in claim 17, wherein the filling is enclosed within the carbon nanotubes.

21. (previously amended) A product comprising:
a substrate having a strain point or a melting point temperature between about 300°C and 700°C; and
a plurality of substantially aligned carbon nanotubes attached to the substrate at a density no greater than 10^2 nanotubes per square millimeter of substrate.

22. (original) A product as claimed in claim 21, wherein the carbon nanotubes extend outwardly from and substantially perpendicular to the substrate.

23. (original) A product as claimed in claim 21, wherein the carbon nanotubes extend outwardly from and at a non-perpendicular angle with respect to the substrate.

24. (original) A product as claimed in claim 21, wherein the carbon nanotubes extend substantially parallel to the substrate.

25. (original) A product as claimed in claim 21, wherein the nanotubes have a diameter between 4 to 500 nanometers.

26. (original) A product as claimed in claim 21, wherein the nanotubes have a diameter of at least about 50 nanometers.

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~~27-28~~ (canceled)

29. (original) A product as claimed in claim 21, wherein the substrate comprises glass, silica, quartz, silicon, iron, cobalt, nickel, an alloy of iron, cobalt, or nickel, platinum, a ceramic, or a combination thereof.

30. (original) A product as claimed in claim 29, wherein the substrate is a glass plate.

31. (original) A product as claimed in claim 29, wherein the substrate is a silicon wafer.

32. (original) A product as claimed in claim 21, further comprising a filling within the carbon nanotubes.

33. (original) A product as claimed in claim 21, wherein substantially all carbon nanotubes have an open end.

34. (original) A product as claimed in claim 33, further comprising a filling within the carbon nanotubes.

35. (original) A product as claimed in claim 34, wherein the filling is hydrogen, lithium ions, bismuth, lead telluride, bismuth tritelluride, or a pharmacological agent.

36. (original) A product as claimed in claim 34, wherein the filling is enclosed within the carbon nanotubes.

37. (presently amended) A product comprising:
a substrate having a strain point or a melting point temperature between about 300°C and 700°C and
one or more carbon nanotubes ~~originating~~ formed on and extending outwardly from an outer surface of the substrate.

38-77 (canceled)

78. (previously amended) A field emission display comprising:
a baseplate having an electron emitting array positioned thereon, the baseplate comprising a substrate and one or more free-standing carbon nanotubes originating and extending outwardly from an outer surface of the substrate; and
a phosphor coated plate spaced apart from the baseplate so that electrons emitted from the array impinge on the phosphor coating.

79-86 (canceled)

87. (previously added) A product according to claim 1, wherein the substrate comprises a catalyst.

88. (previously added) A product according to claim 87, wherein the substrate includes a substrate layer and a continuous or non-continuous catalyst layer between the substrate layer and the plurality of substantially aligned carbon nanotubes.

89. (previously added) A product according to claim 87, wherein the substrate is formed of the catalyst.